result was the disappearance of typhoid bacilli from the circulating blood even twenty-four hours after the injection of serum. The effect was more marked after intravenous than subcutaneous injection. This fact certainly means an intense bacteriolytic action of the serum. To Andriescu and Cinca this alone justifies the use of the serum, and is of first importance in solving the question of carriers.

SURGERY

UNDER THE CHARGE OF

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Experimental Contribution to the Pathogenesis of Acute Hematogenous Osteomyelitis.—Dumont (*Deutsch. Zeitschr. f. Chir.*, 1913, cxxii, 116) says that it is possible to produce in young, growing rabbits, without trauma, by the intravenous injection of staphylococcus cultures, an acute hematogenous, suppurative osteomyelitis. The clinical picture will correspond to that occurring in man from the same affection. The cultures must have a hemolytic effect on rabbit's blood. For the production of a focus of osteomyelitis, cultures of the Staphylococcus pyogenes aureus as well as those of the Staphylococcus albus, may be employed. The variety of the organism employed is not of importance. It is merely the virulence which is of importance. The statement that a specific cause of suppuration, the bacillus of osteomyelitis exists (Hencke), is based upon error. Dumont's experiments, in which he produced osteomyelitis with the Staphylococcus albus developed from other sources of infection than osteomyelitis alone, proves sufficiently the error of this hypothesis. He believes that his experiments have succeeded in proving, experimentally, the interpretation of Lexer of the etiology of acute hematogenous osteomyelitis. Lexer supported it upon the basis of the anatomical arrangement of the bloodvessels of the bone and the biological properties of the staphylococcus. At the site of their deposit in the finest capillaries, chiefly in those of the metaphysis, these increased in number and thus became a focus of suppuration.

A New Method for the Diagnosis of Renal Tuberculosis.—Buerger (*Jour. d'Urolog.*, 1913, iii, 431) says that he has demonstrated that the excision of a portion of the mucosa from the meatus of the ureter, can show the presence of miliary tubercles at a period when all other evidence of renal tuberculosis is absent. Miliary tubercles may be present in this tissue, when the only visible change in the mucous membrane, even for the trained eye, is the appearance of "edema." The excision of this portion of the mucous membrane permits a positive diagnosis to be made, when it is impossible to use the ureteral catheter, when inoculations into lower animals prove negative, when the urine is completely clear, and when the disease presents practically no symptoms. In the beginning of the disease, in questionable cases of renal tuberculosis, a tuberculous focus can concentrate and localize itself at the meatal orifice of the ureter. Miliary tuberculosis may be found in the ureteral ostium even when the rest of the ureter is scarcely affected by tuberculous lesions and also when the pelvis of the kidney is only slightly affected. It will be necessary to practice this method of diagnosis when the objective findings are sufficient to permit one to suppose the development of a renal tuberculosis. It should be resorted to also when one fails to find the tubercle bacillus, and always when positive signs of invasion of the kidney by the tuberculous process are absent.

A Note on the Surgical Treatment of Calculus in the Lower End of the Ureter.—Lemoine (*Jour. d'Urolog.*, 1913, iii, 441) did a transvesical operation for a ureteral calculus, which by the cystoscope and *x*-rays had been located at the vesical orifice of the right ureter. A mild Tredelenburg position was employed and the ureteral meatus was widened by a longitudinal incision. The calculus, however, could not be located. Then an iliac incision was made and the ureter exposed subperitoneally. It was found dilated to the size of the small intestine, and was progressively denuded to the kidney, which, as well as the pelvis, was distended in proportion to the rest of the ureter. Finally the calculus was located in the upper pole of the dilated kidney. Because of the pus in the urine and the thinness of the renal wall, the kidney and ureter were removed. The patient recovered. The calculus was 3 cm. long, 2 cm. wide, and 12 mm. thick, and weighed 13 grams. To determine whether the stone is movable or fixed, several methods may be employed: (1) Repeated skiagraphs may be made at intervals of several days, in varying grades of the Trendelenburg position. Change in the position of the stone in the different skiagraphs, indicates its mobility. (2) The ureteral catheter may be arrested and thus indicate fixation of the stone. But this method is open to error because a stricture or spasm of the ureteral muscle would produce the same result, or the catheter may pass to one side of the stone. (3) A skiagraph taken with the arrested catheter in position would show them both, and thus give strong presumptive evidence of fixation of the stone. Various methods of dislodging a fixed stone are mentioned. It may be approached for removal by the vaginal, rectal, perineal, or sacral paths, but these are not often employed. The transvesical and the subperitoneal are the paths usually chosen. When the stone is recognized to be movable, one may by endovesical methods try to provoke its spontaneous expulsion, or by inverting the patient, cause it to pass to the kidney, where it can be removed by pyelotomy.

Calculi in the Intraparietal Portion of the Ureter.—Pascual (*Jour. d'Urolog.*, 1913, iii, 147) says that calculi in the inferior extremity of the ureter have a characteristic and special symptomatology. They manifest themselves above all by vesical symptoms which lead one to think that the patient is suffering from cystitis. The cystoscope, generally, shows a ureteral orifice surrounded by edema. The skiagraph and ureteral catheterization will show with certainty the seat and size of the stone. The removal will be made by the natural path when that is possible, or by the suprapubic route if extraction by the natural path is impossible or hás failed.

Consecutive Displacement of the Cerebral Hemisphere in the Localization and Removal of Intracerebral Tumors and Hemorrhages (Apoplectic Hemorrhages and Clots).—Hudson (*Annals of Surgery*, 1913, lvii, 492) reports the case of a man, aged forty-five years, who had been in the hospital two weeks, with a slight paralysis of the right side, which had slowly progressed during this period. Hudson was called hurriedly at 2 P.M. On the previous day the patient had suddenly raised himself in bed, after which he grew worse with the symptoms of an intracerebral hemorrhage. He was entirely unconscious during the night. An operation was begun at 2.30 P.M., one-half hour after Hudson was first called, without ether. Oxygen would have been administered, but breathing had failed and artificial breathing was attempted. The brain was rapidly and freely exposed in the parieto-occipital region. An immediate backward displacement of the brain was observed; and the patient began to breathe. A hurried palpation of the brain showed a point which appeared more promnient than any other. Through this point the dura was incised, when immediately the cortex in the apex of a convolution ruptured; several clots of blood and a quantity of fluid blood were forcibly thrown out. At this point the patient's condition had so improved that more deliberation was possible. The hemorrhage from the cavity in the brain was quite profuse, but was eventually controlled with bits of dry cotton. The dura was not closed, and the finger of a rubber glove was caught with a stitch of fine catgut in the lower border of the dura. The brain at this point occupied its normal position within the dura, the abnormal tension produced by the hemorrhage having apparently disappeared. The bone flap was closed down and the scalp closed, the rubber drainage being brought out through an original trephine opening in the skull and the original incision in the dura. The hemorrhage was rather free for three or four days, and continued until the eighth, necessitating daily changes of dressing. The patient rapidly recovered, and was walking about the hospital from the fourth to the twelfth day, when he left. It is Hudson's belief that the surgery of the brain, which is the tap root of the tree of surgery, has failed to advance because of the surgical tools by which this surgery was attempted being inadequate for this work. He further believes that, with the thorough understanding and the proper application of this means, and by observing these methods of doing cranial surgery, the purely mechanical procedures are rendered as easy, quick, and safe as in abdominal surgery.